Searching for dose-response in HF clinics

The study of Stromberg and colleagues is one of the first studies to describe the effectiveness of a nurse-led heart failure clinic in decreasing mortality. Although several studies on heart failure management programmes have shown promising results in decreasing readmission and improving quality of life, effects on mortality have usually been inconclusive. The intervention tested by Stromberg et al. consisted of optimizing medication, patient education and psychosocial counselling. Compared to patients in the control group, patients who attended the heart failure clinic received more optimal doses of ACE-inhibitors and improved self care. The way the data are represented, however, makes it difficult to determine what the most effective component was.

In their paper, the authors primarily attribute the success of their heart failure clinic to increased self-care of patients and do not discuss the role of optimal titration of ACE-inhibitors. Secondly, the authors described that the intensity of the intervention varied substantially in their patient population. Most of their patients visited the heart failure clinic once, 12 patients came twice and the rest of the patients paid three to eight visits. Four patients did not have any clinic visit at all and had only contact to the nurse by telephone. It can be questioned what the optimal dose and mode of contact is (e.g. telephone contact, clinic visit or home visit) for these patients. As discussed by the authors, the number of included patients is rather small, making it impossible to perform analysis on the optimal ‘dose-response’ of this intervention. In other words it is not possible to answer the question if patients who only had telephone contact benefited as much from the intervention as patients that came to the clinic eight times did.

For future planning of health care resources it will be vital to know if we can identify patients who are at risk for future deterioration and consequently intensify our patient education and follow-up for specific groups. To get more insight in such a ‘dose-response’ we recently started a multicentre randomized study in 1050 HF patients (COACH) in which advising and counselling in two different intensities will be compared to follow-up without a heart failure nurse. With this trial we aim to find out the most optimal intensity of care and follow up that is needed to achieve the maximum results. In that way we hope to contribute to provision of optimal care to the growing group of heart failure patients in a time of limited recourses.

References

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Searching for dose-response in heart failure clinics: Reply

Nurse-led heart failure clinics have been used in clinical practice in Sweden for more than 10 years and the concept has spread to many other European countries. This model of care focuses on early follow-up after hospitalization with symptom monitoring, optimized treatment, patient education and psychosocial support. The care is nurse-led with medical support by cardiologists with special interest in patients with heart failure. It has been designed to answer this question. However, it might be more relevant to consider this type of follow-up as a concept of care composed of several components with synergism instead of believing that just one single component could be enough to improve outcomes such as survival, morbidity and quality of life.

The description of the nurse-led intervention in our study was as detailed as possible in order to provide data on how the patients were treated and followed-up. Due to the design of the study, we cannot attribute the success of this follow-up to one particular component of the intervention. However, the concept as a whole led to improved self-care in the patients in the intervention group in terms of better adherence to treatment, more effective monitoring and management of symptoms and this was probably important for the decrease in mortality and morbidity. This is further underlined by the fact that the prescribed (not necessary followed) treatment with ACE-inhibitors and beta-blockers did not differ that much between patients in the intervention and in the control group. At baseline and after 12 months there was no difference in the prescription of ACE-inhibitors and beta-blockers between the groups. After 3 months a significant larger amount of patients in the intervention group had reached the target dose of the ACE-inhibitor, but there was no difference in the use of beta-blockers. The intensity of the intervention was individualised in our study, ranging from one to eight visits to the heart failure clinic. An individualized intervention has several advantages for the patient as well as for the health economy. From both research and clinical experience we know that the heart failure population is a heterogeneous group and the patients have a different need for follow-up after hospitalization. If the goal is to provide patient focused and cost effective care it should be the patients needs and status that determine the number of follow up visits at a nurse-led heart failure clinic rather than a predetermined plan of care with low or high intensity that treats all patients in a standardized way.